



The Cost of Climate Change on Food Security

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Abstract

Today extreme hot or cold days, drought and desertification of the land, change in rainfall pattern, increase in the forest fire and, pests and diseases epidemics and are widely experienced by the communities in an alarming rate. As a consequence, these greatly affect agriculture and food security, water resource, forest and biodiversity, public health and urban settlement and infrastructure. These areas are inter-linked and impacted millions of people. Whereas, in terms of food security it is a slow disaster which increases hunger and famine in the global south countries where hunger is already widespread. For the in-depth analysis of climate change and food security, the research is based on the four dimensions of food security: food availability, food accessibility, food utilization and food stability.

Research Question

What is the linkage amongst climate change, poverty and hunger?

Definition of the Terms

Climate Change: Any significant change in the measures of climate lasting for an extended period of time typically decades or longer.

Food Insecurity: Any situation that exists when people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life.

Food availability: Refers to the supply side of food security and is determined by the level of food production, stock levels and net trade

Food Accessibility: Exist when all the people have social, economical and physical access to safe, sufficient and nutritious food.

Food Utilization: Understood as the way the body makes the most of various nutrients, safe and sufficient food.

Food Stability: Refers to situation when people have physical, social and economic access to sufficient, safe and nutritious food.

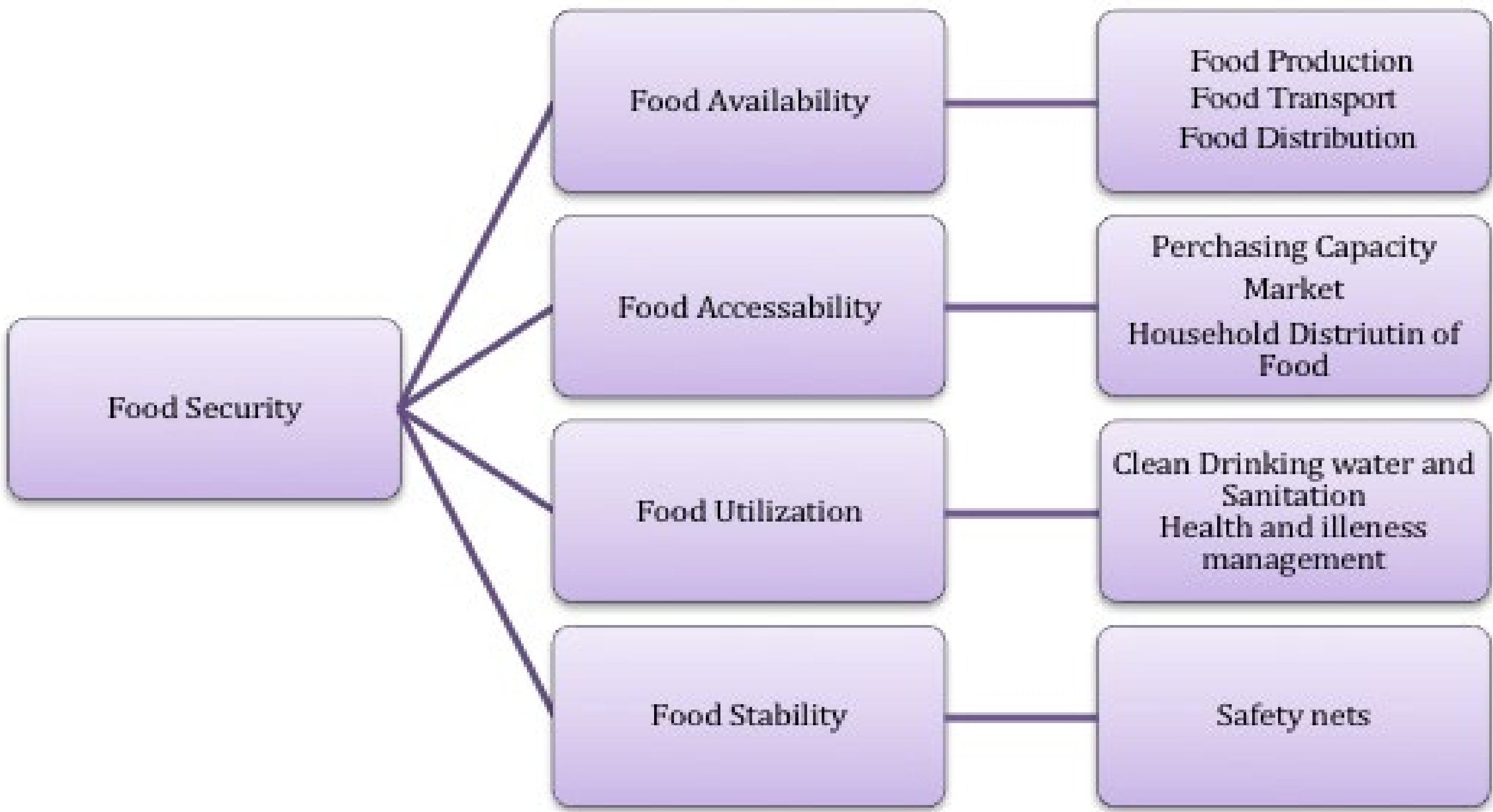
Few Facts on Climate change and Hunger

In 2016 about 815 million people i.e.11% of the world’s population went hungry. This was the first increase in hunger in more than 15 years (WHO 2017) . Due to changing climate, the percentage of the hungry population is significantly increasing. The impact of climate change has most adverse effects on the low and middle-income country. Sub-Sahara Africa mostly arid region, South and East Asia and Small Island States (SIDS) are hit by the food crisis (UN 2007).

Reasons for increase in hunger in Sub-Sahara Africa mostly arid region, South and East Asia and Small Island States (SIDS)

1. Increase in hunger amongst the economically poor regions is most commonly associated with the failure in harvest due to the extreme climatic condition (FAO 2018).
2. Due to these extreme weather conditions, the means of transportation are blocked and the raw materials for food or final product are not reached to the people who have less access to food (FAO 2017).
3. Impacts of global climate change is on subsistence or smallholder farmers who are predominantly in developing countries who own farmlands smaller than two hectares and entirely depend on their subsistence agriculture (FAO 2016).
4. Lack of adaptation funds and strategies is another reason to add in the existing threat in economically poor nations (Akinagbe and Irohibe 2014).

Effects of Climate Change on food security



Selected References

FAO.2016.<http://www.fao.org/3/a-i6056e.pdf>. Accessed 2 18, 2019. www.fao.org.
FAO.2017.*The State of Food Security and Nutrition in the World 2017. Building resilience for peace and food security*. Rome: FAO, IFAD, UNICEF, WFP and WHO.2017
FAO.2018.*The State of Food Security and Nutrition in the World 2017. Building resilience for peace and food security*. Rome: FAO, IFAD, UNICEF, WFP and WHO.2018
UN. 2007. *Impact, Vulnerabilities and Adaptation in Developing Countries*. Germany: United Nations Framework for Climate Change.
WHO. 2017. <https://www.who.int/en/news-room/detail/15-09-2017-world-hunger-again-on-the-rise-driven-by-conflict-and-climate-change-new-un-report-says>. 10 15. Accessed 2 19, 2018. www.who.int.
Akinagbe, O.M, and I.J Irohibe. 2014. "Agricultural Adaptation Strategies to Climate Change Impacts in Africa: A Review." 407-418.

Conclusion

The impact of climate change on food is seen from production to the consumption at individual, local, national and global level. Adversely affect is experienced by economically poor nations making them more food insecure and vulnerable. Due to these above mention impacts, hunger is expected to become a major threat to human security in the region where the food crisis is already widespread. The regions mostly hit hard are Africa, Asia and SIDs. Major crops of these regions like maize, rice and wheat production will decrease due to the impacts of climate change.